Prysmian Group

INSTALLATION INSTRUCTION

HDB4 – HYBRID DROP BOX (4) DROPS

Description

- The HDB4 wall box is a wall box designed to take hybrid cables containing both copper and optical fibres.
- The copper is stored whilst the optical fibres are spliced to "drop" cables (up to 4 per box) with up to 4 splices possible.
- The box also has a provision for 2x LC Duplex / SC simplex connectors to utilise pre-connectorised solutions in the future.
- The box is supplied with everything required to install 4 drop cables.

Tools & Additional Items Required

Tools:
Flathead screwdriver, pozi screwdriver, Scissors, Vernia/diameter tape, Marker pen, Cable Sheath Stripper, Fibre stripping tools, Splicing machine.

Additional items required:
Heat shrink splice protectors **XPESC00057**

Component Parts (pictures not to scale)

1 HDB4 Wall Box

2 Installation kit

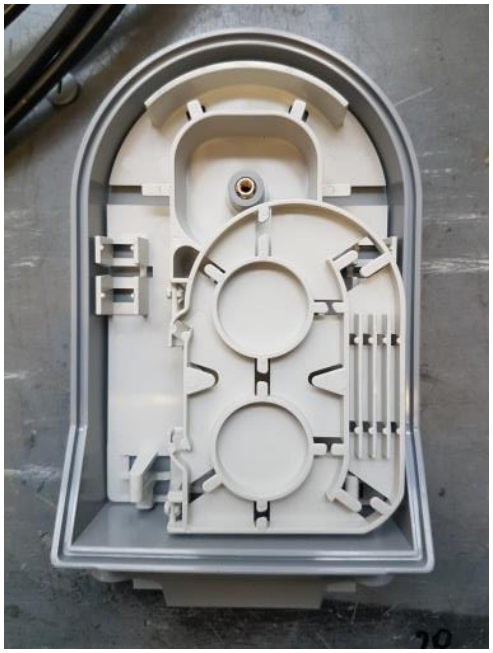
Components and quantity in the kit

1.Double cable grommet	x 2
2.O-seal	x 1m
3.Single cable grommet	x 2
4.Cable tie	x 6
5.Wall mount screw set	x 1

CONTENTS

1. BOX PREPERATION AND WALL FIXING

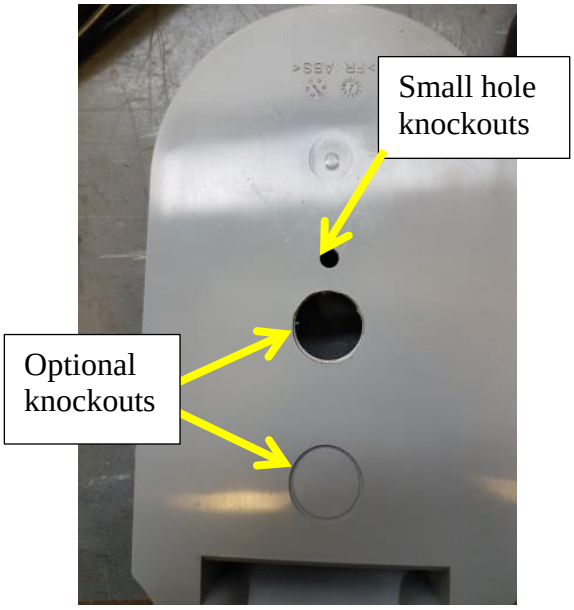
Step 1



- Remove cover exposing the insert and tray inside.
- Check the insert is properly installed flush to the base.

1. BOX PREPERATION AND WALL FIXING

Step 2



- Knockout small hole in base of box, using approved practises.

NOTE: if fibres are to be taken into customers premises through wall, the applicable knockout must be knocked out at this point.

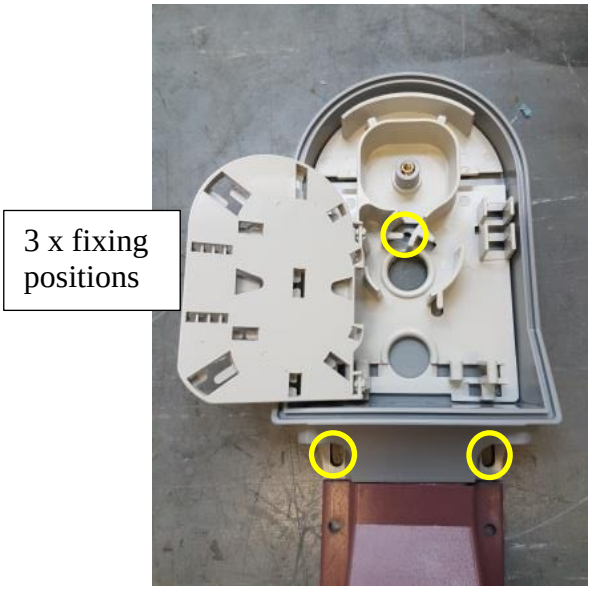
1. BOX PREPERATION AND WALL FIXING

Step 3

- Install the wall box on top of existing capping as above.
- If cables must be routed through wall into customers premise, ensure pre-drilled hole lines up with knockout holes in base/insert of box.
- **For existing build/new box go to step 4.**
- **For new build, or replacing box go to step 5.**

1. BOX PREPERATION AND WALL FIXING

Step 4



- Mark positions for drilling 3 x wall plug holes.
- Drill holes and push wall plugs into holes, so they are flush with the wall face.
- **Do not** fix wall box securely to the wall until step 13 after cables are installed.

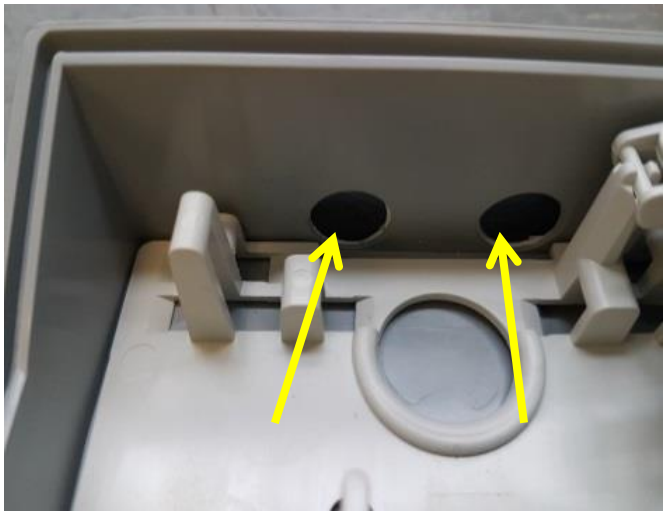
1. BOX PREPERATION AND WALL FIXING

Step 5

- Ensure pre-drilled holes line up with 3 box fixing holes as detailed in step 4.
- **Note: Extra capping may be required.**
- Insert wall plugs into holes so they are flush with the wall face.
- Do not fix wall box to wall until step 13 after cables are installed.

2. PRIMARY CABLE INSTALLATION, FIBRE ROUTING AND SPLICING

Step 6



- To install primary cables into the incoming cable route, knockout the required holes as shown using approved practises.

NOTE: for figure 8 Hybrid cables, separate elements as per CIGxxx for 1m from the open end.

2. PRIMARY CABLE INSTALLATION, FIBRE ROUTING AND SPLICING

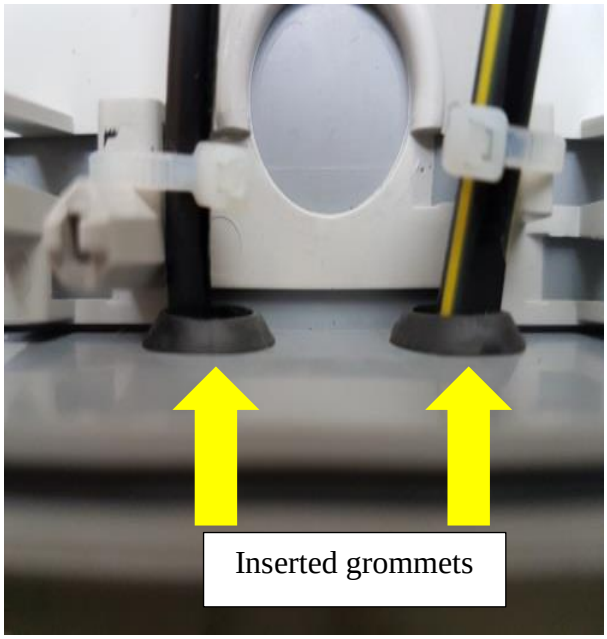
Step 7

- Measure each cable or part of cable diameter (for figure of 8 Hybrid).
- Using scissors or similar, cut the single grommets at the required point, depending on diameter.

NOTE: cut just below the number on the grommet.

2. PRIMARY CABLE INSTALLATION, FIBRE ROUTING AND SPLICING

Step 8

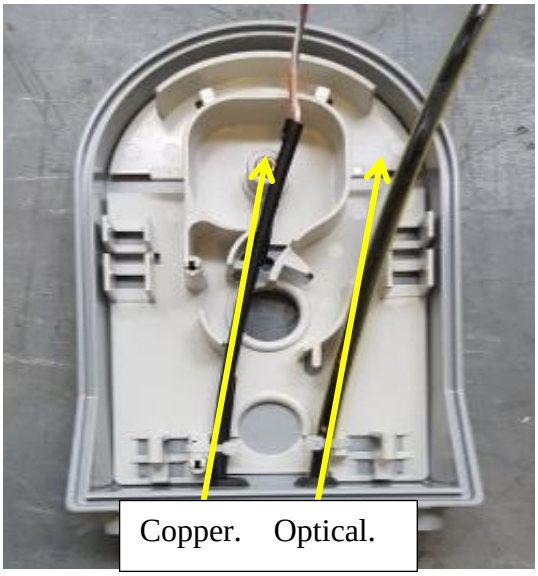


- Insert the grommet(s) into the knocked-out holes as above.

NOTE: Only the above should be visible from inside the box. This will ensure sealing.

2. PRIMARY CABLE INSTALLATION, FIBRE ROUTING AND SPLICING

Step 9

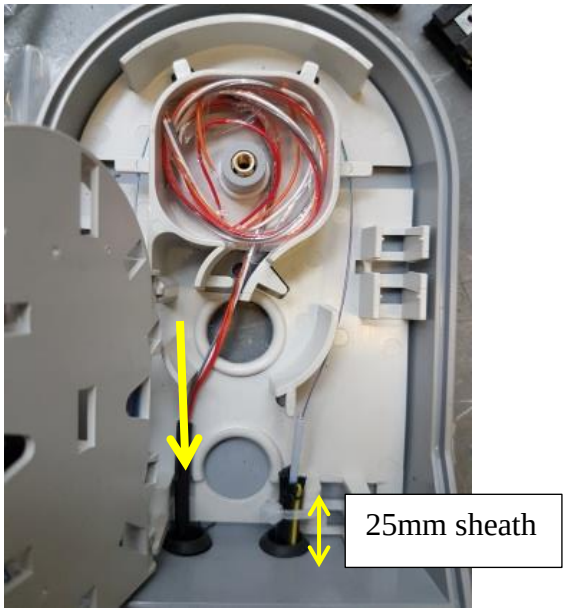


- Feed the cables through the grommets for 1.2m (optical) or 0.25m (copper), ensuring if the cables are still joined, this does not distort either grommet.

NOTE: Copper must enter through the left grommet, optical fibres through the right.

2. PRIMARY CABLE INSTALLATION, FIBRE ROUTING AND SPLICING

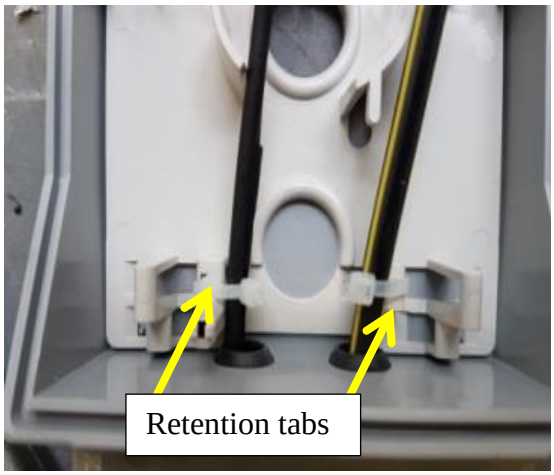
Step 10

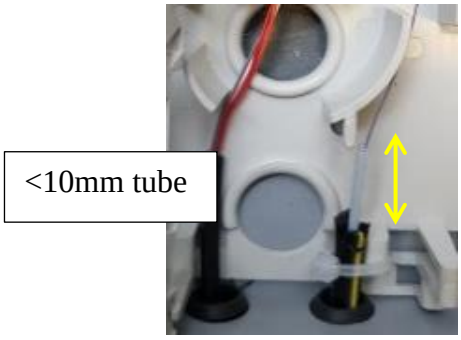


- Strip cables using approved practises leaving 25mm sheath exposed as shown and pull back cable if necessary.

2. PRIMARY CABLE INSTALLATION, FIBRE ROUTING AND SPLICING

Step 11

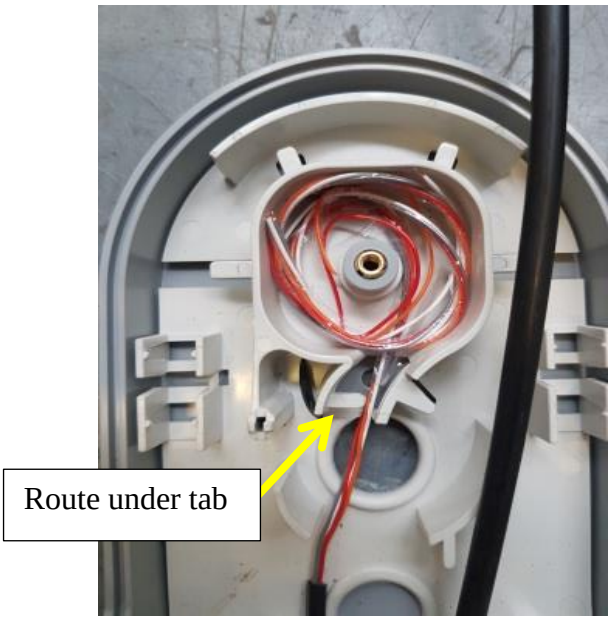




- Using the supplied cable ties, tie the primary cables onto the retention tab as shown.
- Fibre should be fully exposed at this point to ensure easy routing i.e. less than 10mm of tube exposure preferable.

2. PRIMARY CABLE INSTALLATION, FIBRE ROUTING AND SPLICING

Step 12

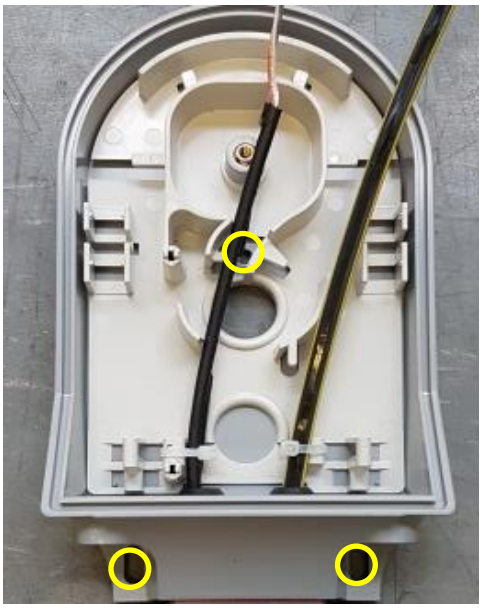


- Route copper as above picture.

NOTE: Copper is typically stored for later use.

2. PRIMARY CABLE INSTALLATION, FIBRE ROUTING AND SPLICING

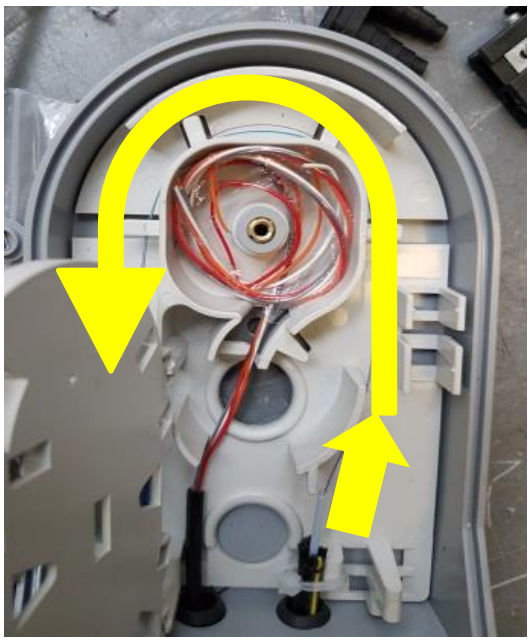
Step 13



- Fix wall box securely to the wall above the capping using the three screw positions.

2. PRIMARY CABLE INSTALLATION, FIBRE ROUTING AND SPLICING

Step 14

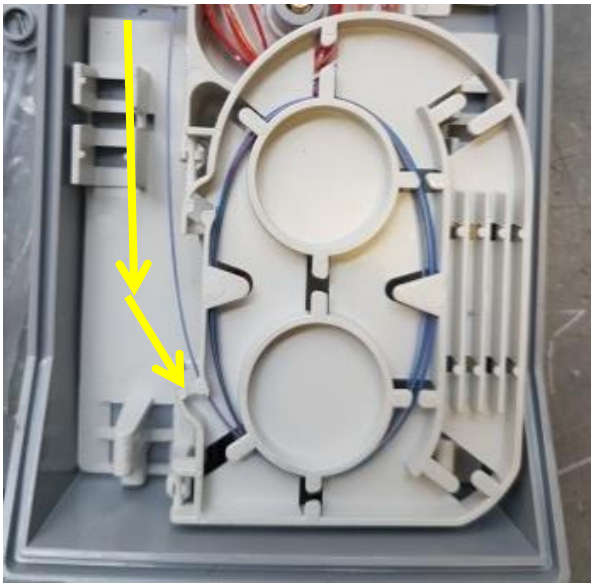


- Route the optical fibres as picture shows.

NOTE: Fibre should not be routed around box more than once for accessibility.

2. PRIMARY CABLE INSTALLATION, FIBRE ROUTING AND SPLICING

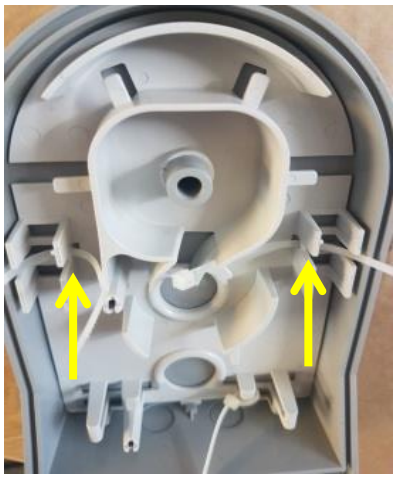
Step 15



- Route fibres onto tray and prepare for splicing.

2. PRIMARY CABLE INSTALLATION, FIBRE ROUTING AND SPLICING

Step 16



- If storing fibre element in a loop, place cable ties under both retention tabs as above picture. Do not close cable tie.
- Coil loop length in 100mm diameter coil.

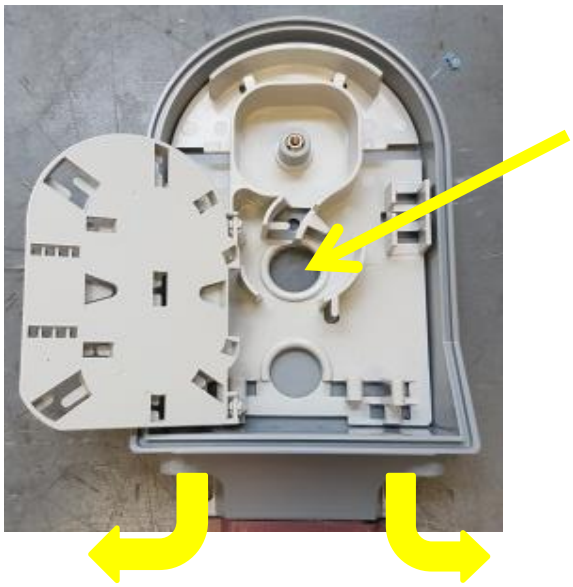
2. PRIMARY CABLE INSTALLATION, FIBRE ROUTING AND SPLICING

Step 17

- Place one side of the coil in the open cable tie and tighten.
- Place the other side in the other cable tie and tighten.
- Push fibre element behind tabs to ensure no conflict with the tray or cover.

3. DROP CABLE INSTALLATION, FIBRE ROUTING AND SPLICING

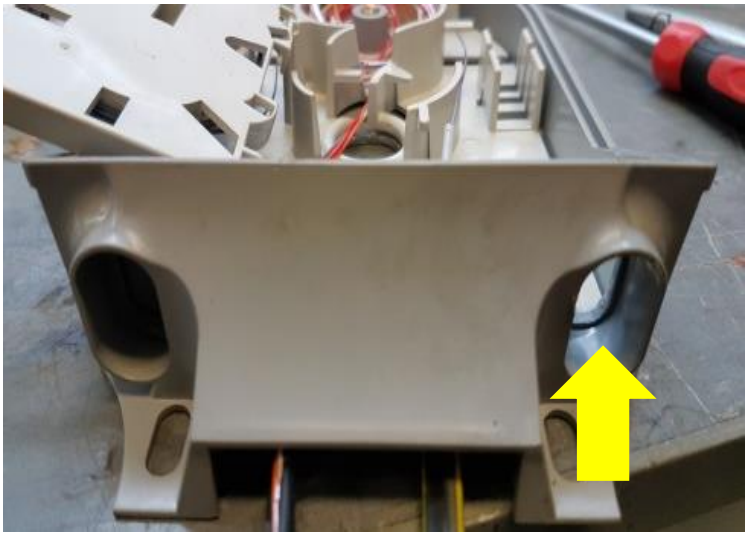
Step 18



- For connecting the first one or two drops outside the box, follow steps 2 – 6.
- For connecting the third/4th customer outside the box, follow step 7.
- For connecting customers directly through the wall into the premise, follow from step 8.

3. DROP CABLE INSTALLATION, FIBRE ROUTING AND SPLICING

Step 19



- Knockout double section as shown using approved practises.

NOTE: for one or two drops only, use right hand grommet/knockout. This makes fibre routing easier.

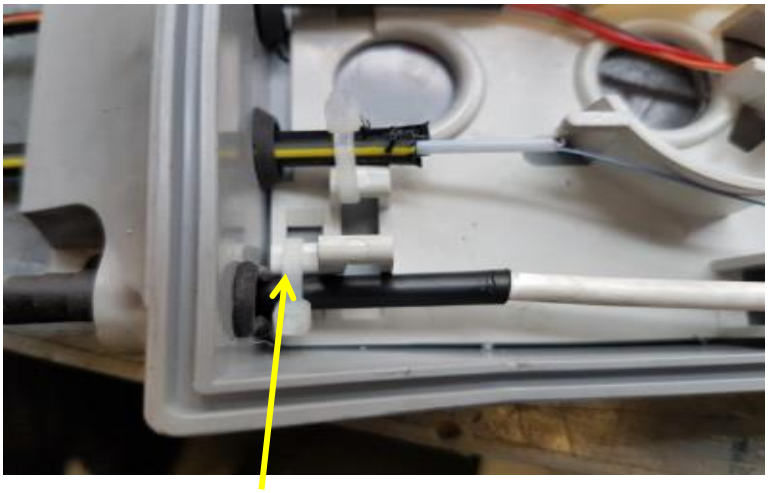
3. DROP CABLE INSTALLATION, FIBRE ROUTING AND SPLICING

Step 20

- Measure drop cable outside diameter and cut grommet at required point, below number.
- Feed cable through grommet for 1.2m.
- Insert grommet into knocked out hole.

3. DROP CABLE INSTALLATION, FIBRE ROUTING AND SPLICING

Step 21

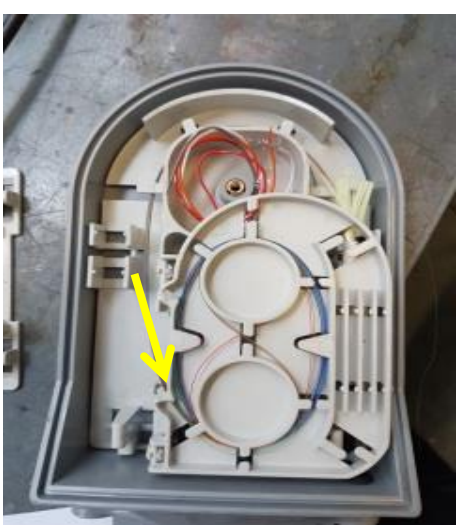


- Cable tie cable to retention tab.

NOTE: first cable through grommet should use the bottom hole and retention tab.

3. DROP CABLE INSTALLATION, FIBRE ROUTING AND SPLICING

Step 22



- Strip cable down to fibre element using approved methods.
- Route fibre element around box onto splice tray as picture shown.

3. DROP CABLE INSTALLATION, FIBRE ROUTING AND SPLICING

Step 23

Splice

- Splice using approved practises.

3. DROP CABLE INSTALLATION, FIBRE ROUTING AND SPLICING

Step 24

- For a third and fourth drop in the same box, repeat steps 2 to 6 and route left hand side fibres as shown.
- Pass open end of fibres underneath splice tray as shown.

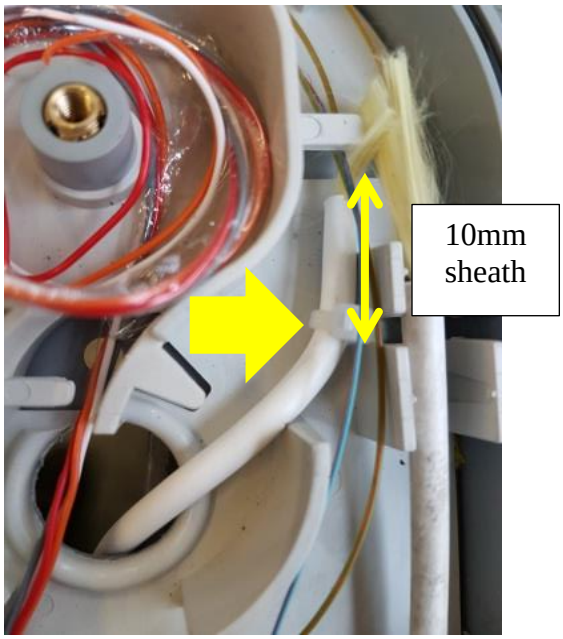
3. DROP CABLE INSTALLATION, FIBRE ROUTING AND SPLICING

Step 25

- For installing a drop through the customer premise, feed the cable through the wall from the inside for 1m.

3. DROP CABLE INSTALLATION, FIBRE ROUTING AND SPLICING

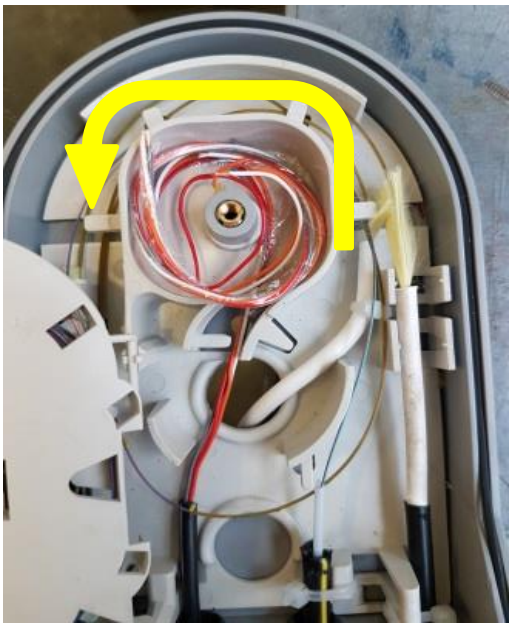
Step 26



- Retain the cable using a cable tie as shown.
- Strip the cable 10mm from where it is retained.

3. DROP CABLE INSTALLATION, FIBRE ROUTING AND SPLICING

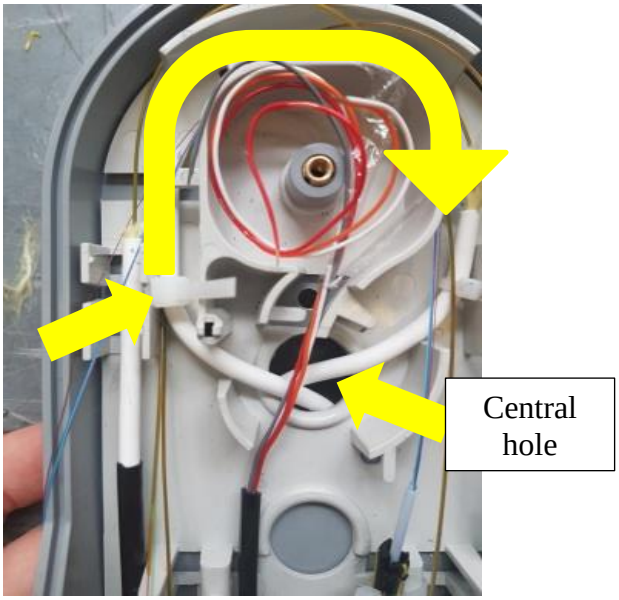
Step 27



- Route the fibres as shown onto splice tray.
- Splice using approved practises.

3. DROP CABLE INSTALLATION, FIBRE ROUTING AND SPLICING

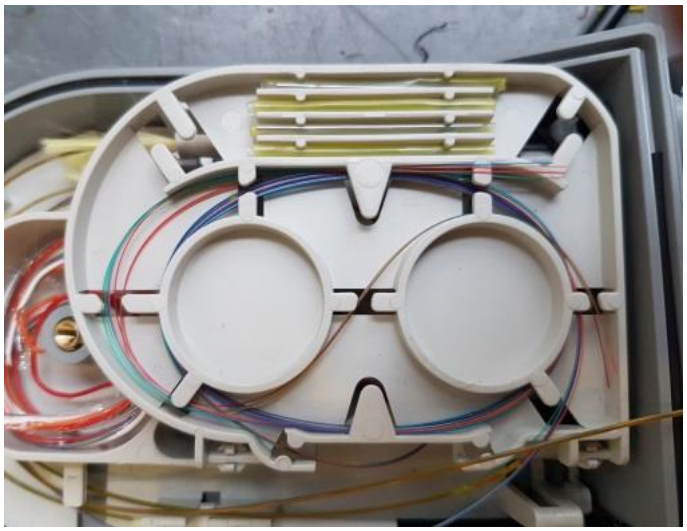
Step 28



- If using the left-hand side, route drop using central hole retaining as shown.
- Route fibres as shown, underneath and onto splice tray.

3. DROP CABLE INSTALLATION, FIBRE ROUTING AND SPLICING

Step 29



- Splice using approved practises.

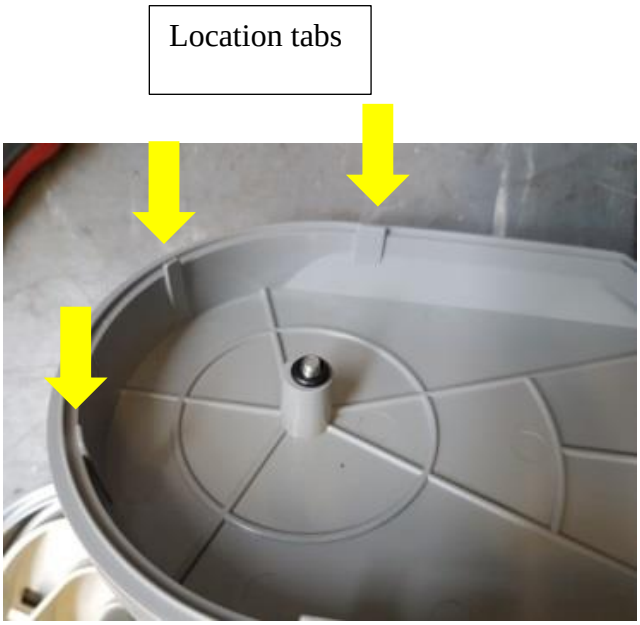
4. WALL BOX CLOSE DOWN

Step 30

- To close and secure the wall box, ensure the screw is placed in the cover with the two o-seals as the picture shows.

4. WALL BOX CLOSE DOWN

Step 31



- Place the cover over the base using the location tabs to ensure it is in the correct position.
- Ensure the outside o-seal remains in the groove on the base.

4. WALL BOX CLOSE DOWN

Step 32

- Screw the screw tightly into the base and add the screw cover to hide the screw head.

4. WALL BOX CLOSE DOWN

Step 33

- Wall box installation complete.
- To re-access, remove screw cover using flathead screwdriver and undo screw.

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